Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

A2C78
v.7-2

VOL. 7 No. 22 MAY 31, 1957

LIBRARY
CURRENT SERIAL RECORD
JUN 13 1957
U. S. DEPARTMENT OF AGRICULTURE

Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Plant Pest Survey Section
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

Volume 7 May 31, 1957 Number 22

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

GRASSHOPPER hatch underway in the Dakotas and continues in several other States. (p. 415). EUROPEAN CORN BORER 40 percent emerged in southern Illinois. Moths expected in Iowa around June 1. (p. 415). CORN EARWORM appearing on corn in Virginia, general in Yuma, Arizona area. (p. 415).

ARMYWORM outbreaks in areas of Virginia, Maryland, Arkansas, and Oklahoma. Generally heavy in north central Texas and damaging small grains in southern Missouri. (p. 416). VARIEGATED CUTWORM of concern on alfalfa and small grains in parts of Missouri, Kansas and Texas. (p. 417). CUTWORM damage to seedling corn in South Dakota, Kansas and Missouri. (p. 415).

HESSIAN FLY heavy in southwest Georgia and severe in Washington County, Oregon. Missouri reports damage in New Madrid County. (p. 417). PEA APHID abundant on alfalfa in southeast Nebraska, damaging alfalfa in Minnesota and unusually serious at Yuma, Arizona. (p. 417). SPOTTED ALFALFA APHID appearing in Nebraska. (p. 418). ALFALFA WEEVIL reported from Connecticut for first time. (p. 419).

CODLING MOTH entries in southern Illinois and Indiana. (p. 419). Considerable RED-BANDED LEAF ROLLER infestation in Missouri. ORCHARD MITES abundant in some orchards in Wisconsin and Washington. (p. 420). PEAR PSYLLA heaviest on record at Yakima and Wenatchee, Washington. (p. 421).

COLORADO POTATO BEETLE heavier than last year in eastern Virginia, heavy activity in Arkansas. First eggs in New York. (pp. 422, 429). Surveys continue to indicate severe infestation of POTATO PSYLLID later in areas of Nebraska, Wyoming and Colorado. (p. 422).

HORNWORMS eggs on tobacco in North Carolina. TOBACCO FLEA BEETLE moderate to heavy in counties of Georgia, North Carolina, Maryland and Virginia. (p. 425).

BOLLWORMS appearing in delta counties, Mississippi. (p. 425). THRIPS damage to cotton continues in Louisiana, Mississippi and Arizona. (p. 426).

TABANIDS abundant in some areas of Virginia, North Carolina and West Virginia. (p. 427).

New California record for a spruce APHID (Cinara piceicola). Aphids abundant on shade trees and ornamentals in many areas. (p. 428).

CORRECTIONS. (p. 429). ADDITIONAL NOTES. (p. 429).

INSECTS not known to occur in United States. (p. 431).

Distribution of RANGE GRASSHOPPERS. (p. 432).

Reports in this issue are for the week ending May 24 unless otherwise designated.

WEATHER OF THE WEEK ENDING MAY 27

Frequent tornado outbreaks and other violent storm activity in the southern and central Plains States and the upper and middle Mississippi Valley areas brought death to scores of individuals, personal injury to hundreds, and resulted in the destruction of thousands of buildings. Some 58 tornadoes were reported on Friday alone, bringing preliminary totals for the year, as of that day, up to 553. (It is interesting to note that the Monthly Weather Review lists a total of 52 tornadoes occurring in the Southeastern States on February 19, 1884 when reporting networks and population were not nearly so dense as they are today. In connection with this outbreak the American Meteorological Journal states "The loss of property was three or four millions of dollars and of lives about one thousand with perhaps twice as many more wounded. Ten thousand buildings were destroyed and fifteen or twenty thousand people made homeless.")

The tornado which swept through the suburbs of Kansas City, Mo., on the 20th brought death to 37 and injury to over 200 persons, while on the following day when a series of twisters struck southern and eastern portions of the same state, some 14 additional deaths were reported. Also 4 persons were killed at Lawton, Okla. A few other areas where tornadoes struck during the week were Harris and Staples, Minn.; Peck, Kan.; Clovis, New Mex.; and Midland, Tex.

This storm activity, as well as torrential downpours which occurred in this area, were the result of unstable air mass conditions which generally extended from central Texas into the Great Lakes region. These conditions resulted when cold air, pushing in behind cyclonic centers which intensified over the central Rocky Mountains and moved northeastward, interacted with the warm, moist air covering the Southeast.

For the second consecutive week precipitation was recorded at most stations, and weekly totals were moderate to heavy over a vast portion of the country. Areas with light amounts were confined primarily to the states west of the Divide, the Southwest, and isolated spots along the Gulf and Atlantic coasts. Rivers and streams continued to overflow in parts of Texas, Oklahoma, and Arkansas, and local flooding was observed in Missouri, Indiana, Kentucky, and Tennessee as excessive rains fell in sections of these states. In Tennessee, severe flooding in Lake and Dyer Counties on Thursday resulted in an estimated 3-1/2 million dollar damage to crops. Extremely heavy weekly totals reported this week included 8.49 inches at Fort Worth, Tex.; 8.90 inches at Little Rock, Ark.; 6.56 inches at Shawnee, Okla.; 7.07 inches at Owensboro, Ky. In other areas 5.32 inches was observed at Macon, Ga.; and 4.35 at Rapid City, S. Dak.

Weekly temperature averages were generally below normal west of a line extending from southwestern Texas to northwestern Michigan. Elsewhere to the east of the line they were above, except for a small area incorporating New York, northern and eastern Pennsylvania, New Jersey, and portions of Maryland and Delaware. Departures were greatest in Utah where they averaged -11° to -12° and in central Alabama where they were as much as +7°. Minimum temperatures dropped to freezing or below on one or more nights in sections of the Dakotas, eastern Montana, and western Minnesota, but at other low elevations they remained above 32° throughout the week.

(Summary Supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - UTAH - Hatching very light due to weather. (Knowlton). IOWA - One M. mexicanus per 10 sweeps in alfalfa in Ida and Cherokee Counties. (Iowa Ins. Inf.). KANSAS - Nymphs found in all fields in northeastern area; low, 1-7 per 25 sweeps. (Matthew). NEBRASKA - Hatch continues in southeast. Melanoplus bivittatus and M. mexicanus moving from roadsides and fencerows into alfalfa, 39-87 per 100 sweeps. (Andersen). SOUTH DAKOTA - Newly-hatched Melanoplus spp. nymphs in alfalfa in southeastern area, up to 2 per 10 sweeps. (Hantsbarger). NORTH DAKOTA - As many as 20-40 first instars per square yard in stubble in Golden Valley, Stark, Billings, Dunn, and McKenzie Counties in southwest area. Some damage to edges of grain fields. Melanoplus bivittatus and M. mexicanus involved. Ten to 12 first instars per square yard in Cass County in southeast area. From 100-150 per square on roadside in eastern Dickey County. From overall standpoint hatch just beginning and spray program may not get underway before June 3. Nymphs averaging, fifteen to 20 per square yard in northern McHenry County in northwest area. Light in roadsides and stubble in central area. (N. D. Ins. Rept.). MINNESOTA - Cold weather delaying egg development. (Minn. Ins. Rept.). ARKANSAS - Hatching of Melanoplus sp. well underway; 10-12 nymphs per square foot in small area in Mississippi County. Fewer elsewhere. (Warren, May 20). TEXAS - Aulocara elliotti and Ageneotettix deorum hatching in rangeland in Potter and Oldham Counties. Up to 100 per square yard with 99 percent in first instar. (Russell, Landrum).

EUROPEAN CORN BORER (Pyrausta nubilalis) - ILLINOIS - Pupation southern area 90 percent, emergence 40; central pupation 55, no emergence; north central pupation 20; northern pupation less than 10. (Ill. Ins. Rept.). IOWA - Pupation at Ankeny 10 percent and 16 percent at Ames, May 24. This is behind 1956. Moth flight should begin about June 1 if weather continues favorable. (Iowa Ins. Inf.). PENNSYLVANIA - Adults in hay field sweepings in south central area. (Pepper). MINNESOTA - No pupation to May 24. (Minn. Ins. Rept.).

CORN EARWORM (Heliothis zea) - ARKANSAS - Slow appearing in legumes. (Warren, May 18). VIRGINIA - Larvae in whorl of corn plants in Franklin County. (Amos, Tucker). ARIZONA - Heliothis sp. general on sweet corn in Yuma area, though apparently not as serious as last year. (Ariz. Coop. Rept.).

MORMON CRICKET (Anabrus simplex) - OREGON - Development in Gilliam County retarded by weather. Still in first to third instar, May 18. Control measures indicated unless natural control effective within next two weeks. (Chinn, Busdicker). WASHINGTON - Total 400 acres farm and rangeland lightly infested 18 miles east of Keller; scattered infestation near Omak and threatening population 23 miles southeast of Okanogan. (Chinn, Stewart). UTAH - Second and third instars in Tooele County. (Thornley).

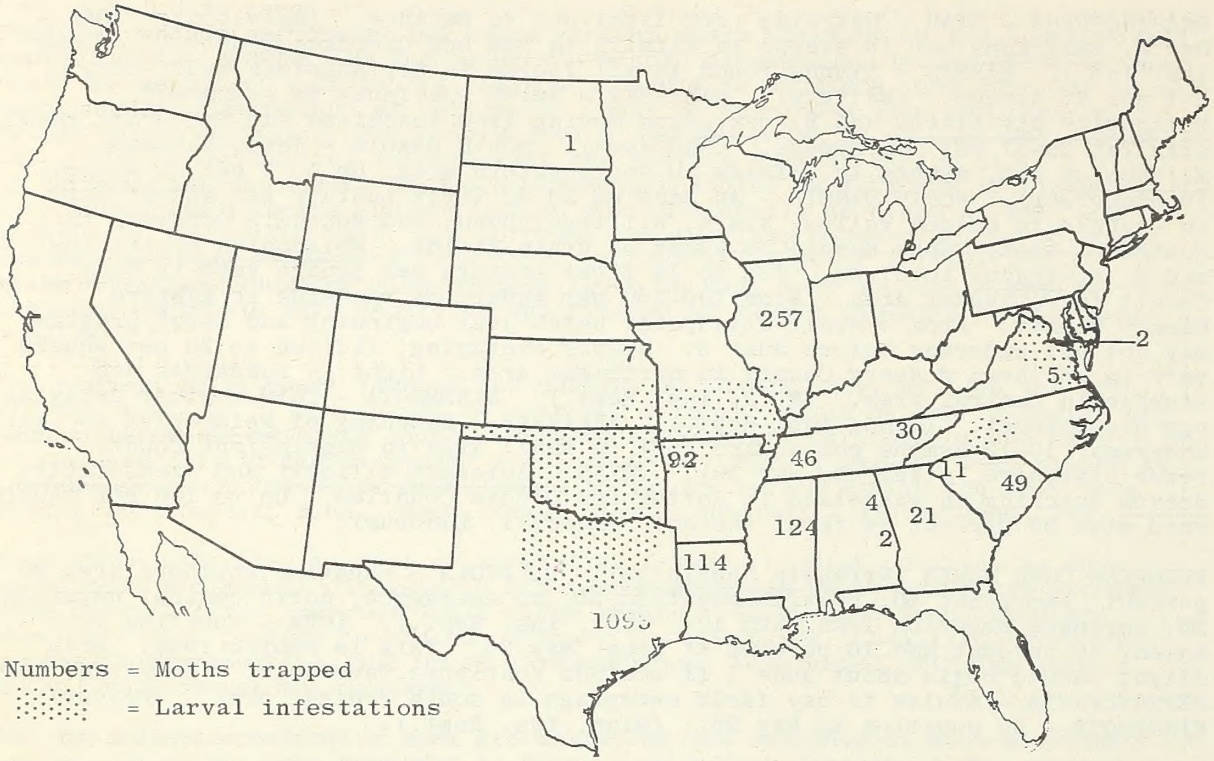
ENGLISH GRAIN APHID (Macrosiphum granarium) - WASHINGTON - Light in four wheat fields between Prescott and Walla Walla, up to 2.1 wingless forms and 1.2 winged forms per sweep. (Dailey).

CORN ROOT WEBWORM (Crambus caliginosellus) - VIRGINIA - Light to moderate on corn in Pittsylvania County. (Dominick).

CUTWORMS - SOUTH DAKOTA - Damage from Feltia sp. to corn plants in southeast ranges from 4 to 25 percent. (Hantsbarger). ILLINOIS - Average 2 per square foot in legumes. (Ill. Ins. Rept.). KANSAS - Cutworms beginning to damage seedling corn in local areas Riley County vicinity. (Matthew). MISSOURI - Agrotis ypsilon, A. gladiaria and Feltia subgothica continue to heavily damage seedling cotton, small corn and gardens in scattered areas. From 0-11 per 100 feet of corn row in southwest. Little or no damage in fields treated with soil insecticides. (Kyd, Thomas).

CHINCH BUG (Blissus leucopterus) - MISSOURI - Four to 12 adults per foot of drill row of wheat in Clay County. (Kyd, Thomas).

Armyworm Situation as Reported Week Ending May 24



ARMYWORM (Pseudaletia unipuncta) - DELAWARE - First outbreak in eastern Kent County, May 20. (Late News). MARYLAND - Outbreak numbers in small grain in sections of Queen Annes, Talbot, Caroline and Worcester Counties. Ten per linear foot of row in one barley field. Hay mixtures and corn also being damaged. Treatment by air underway in several counties. (U. Md., Ent. Dept.). VIRGINIA - Outbreaks in small grain in eastern and northern counties. Airplanes applying insecticides in some instances. Some fields requiring control on Eastern Shore. Two per square foot recorded in section of Culpeper County. (Morris, Willey et al.). NORTH CAROLINA - Responsible for one-third heads clipped in small grain in local areas of Davie County. Less than 5 percent parasitised. Moving into corn locally in Catawba County and reported from Iredell, Rowan and Alexander Counties. (Franklin, Williams, Jones). ILLINOIS - From 0 to 8 per linear foot of grain row; averages 1.9 in southwestern area. Only occasional field has damaging population. (Ill. Ins. Rept.). IOWA - Ten to 20 moths per night in light traps at Ames and Ankeny. (Iowa Ins. Inf.). LOUISIANA - Threat over due to maturity of small grains. (Oliver). ARKANSAS - Armyworm and variegated cutworm have severely attacked second-growth alfalfa in northwestern counties. Natural control not adquate to hold infestation and insecticides applied some fields. (Warren). KANSAS - Found in many small grain fields in southeastern counties; however, no plant damage. Moths still present. (Gates). TEXAS - Twenty to 25 per square foot in wheat in Hunt County; 35-40 per square foot in wheat and vetch in Rockwall County. General heavy infestation in practically all grain fields in north central area with average of 15-20 per square foot. Moving from grain to corn in some cases. (Chada). MISSOURI - From 1-12 per square foot in barley and other rank small grains over southern half of State. Economic mainly in barley. Larvae from full-grown to third instar. Parasites and disease killing 25-40 percent of larvae. (Kyd, Thomas). OKLAHOMA - Becoming serious in small grains, especially in southern and central counties. Considerable spraying. (Coppock). Numerous in Tillman and Hughes Counties, considerable spraying Tillman. (Flora, Hatfield). Two per square foot in marging of small grains in Marshall area. (Henderson). MAINE - Moth in grass in Augusta area, May 9. (Brower).

VARIEGATED CUTWORM (Peridroma magaritosa) - MISSOURI - Heavy numbers of larvae, one-third to full-grown, in alfalfa, especially in southwest area. From 1-4 larvae per square foot in uncut alfalfa and 2-15 under windrowed or baled alfalfa. New growth being destroyed in several fields in extreme southwest corner of State where controls being used. (Kyd, Thomas). KANSAS - As high as 6 per square foot in alfalfa in southeast. (Gates). TEXAS - Continues to infest small grain and vetch in north central area. Some pupation. (Chada, Randolph).

DESERT CORN FLEA BEETLE (Chaetocnema ectypa) - ARIZONA - Numerous and causing noticeable damage to young sorghum in Gila Valley, Yuma County. (Ariz. Coop. Rept.).

BEET ARMYWORM (Laphygma exigua) - ARIZONA - Light damage to 300 acres of sorghum in Pinal County. (Ariz. Coop. Rept.).

ASIATIC GARDEN BEETLE (Autoserica castanea) - NORTH CAROLINA - Heavy infestation, about 20 per square foot, in pastures locally in Haywood County. (Dogger).

HESSIAN FLY (Phytophaga destructor) - GEORGIA - Heavy in wheat in several southwest counties. (Johnson). OREGON - Severe in Washington County with several fields plowed under. High populations of larvae and pupae in spots. (Goeden). MISSOURI - Several fields of wheat in New Madrid County from 10-15 percent lodged. One to 4"flaxseeds" per stem. (Adkisson).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - GEORGIA - Light in field peas in Spalding County and corn in Sumter County. (Beckham).

RICE WATER WEEVIL (Lissorhoptrus oryzophilus) - LOUISIANA - Considerable feeding activity in Acadia, Jefferson Davis and Lafayette Parishes. (Oliver, May 17).

WHITE GRUBS (Phyllophaga spp.) - WISCONSIN - Moderate to heavy population in many counties. (Wis. Ins. Surv.).

PEA APHID (Macrosiphum pisi) - PENNSYLVANIA - Increasing in Northampton County. (Menusan). Parasites and predators reducing population in south central area. (Pepper). NEBRASKA - Very light population in northwestern counties and in Republican River Valley. Counts from 0 to 3 per 25 sweeps in northwest and up to 3 per sweep in Republican River Valley. (Weekman, Andersen, May 18). WISCONSIN - Slight decrease, 12-22 per sweep. (Wis. Ins. Sur.). ILLINOIS - Averages 181 per 100 sweeps. Maximum counts were in southeast, 782. (Ill. Ins. Rept.). MINNESOTA - Two to 22 per sweep in alfalfa in central, 3-12 per sweep in south central district. Heavy populations causing damage to alfalfa reported from several areas. (Minn. Ins. Rept.). KANSAS - Little increase; 160-2800 per 25 sweeps in local areas of northeast. (Matthew). NEBRASKA - Heavy on alfalfa in southeast, 275-1560 per 100 sweeps. Three to 60 per 100 in northeast. (Andersen). ARIZONA - More serious this spring in Yuma area than for 5 years and has caused much more damage than spotted alfalfa aphid in many fields. Declining rapidly, however. (Ariz. Coop. Rept.). TEXAS - Twenty per sweep on vetch in Rockwall and Hunt Counties; 100 per sweep locally in Kaufman County. (Hawkins, Randolph). UTAH - Most abundant in areas of southern and northern Utah. (Knowlton).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - GEORGIA - Thirty-two per 100 sweeps in alfalfa in Sumter County. (Johnson, May 20). ARIZONA - Light damage to old stands of alfalfa in Pinal County. (Ariz. Coop. Rept.).

THRIPS - GEORGIA - Light to moderate on peanuts in Tift, Colquitt, Berrien, Ware and Tattnall Counties. (Johnson).

BEAN LEAF BEETLE (Cerotoma trifurcata) - IOWA - Reported on soybean from Monona County, much earlier than in past years. (Iowa Ins. Inf.).

SPOTTED ALFALFA APHID - NORTH CAROLINA - Some winged forms in alfalfa in central Piedmont area. (Farrier). ARKANSAS - Remains very light. (Warren, May 18). LOUISIANA - Remains generally light, some increases in Bossier Parish. (Oliver). MINNESOTA - None found to May 24. (Minn. Ins. Rept.). SOUTH DAKOTA - Found in Clay and Union Counties on alfalfa May 23, one per 50 sweeps. Winged and wingless forms. (Hantsbarger). NEBRASKA - Found for first time this year, May 23, in Nemaha County. Very light, 2 winged forms per 200 sweeps. (Andersen, Weekman). KANSAS - Little increase in eastern half of State in past week; 1-75 per 25 sweeps. (Matthew). A few in Finney and Ellis Counties. (DePew, Harvey). NEVADA - Light to moderate in southern Nye County, May 18. Evidence of resistance to parathion. Most fields have received two treatments with some requiring three. Remaining low in Clark County to May 11. (Gallaway). UTAH - Damage in Washington County, 600 acres treated. Occuring May 24 in Iron, Kane, Washington, San Juah and Grand Counties. (Knowlton). ARIZONA - Predators reduced populations greatly in Yuma area. Where aphids abundant, predators have controlled in 7-10 days. Aphids generally light in Pinal County with predators giving fair control. (Ariz. Coop. Rept.).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - WISCONSIN - Averaging 5 per stem in some Outagamie County alfalfa fields. Most fields had less. (Wis. Ins. Sur.). MARYLAND - Adults appearing in legumes. (U. Md., Ent. Dept.). VIRGINIA - Considerable damage to alfalfa after first cutting in Rockingham County. (Raffensperger).

SPITTLEBUGS - ILLINOIS - Average 14 per 100 stems. Maximum counts, 35 per 100 stems, in northwest and central areas. (Ill. Ins. Rept.). IOWA - Small numbers, 1 per 10 alfalfa and clover plants, in eastern area. (Iowa Ins. Inf.).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - NORTH DAKOTA - Heavy scattered feeding in old sweetclover at several locations. (N. D. Ins. Rept.). NEBRASKA - Adults continue to feed in sweetclover in southeast, 6-10 per 10 sweeps. (Andersen). WASHINGTON - Light roadside damage to sweetclover near Brewster. (Telford).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - SOUTH DAKOTA - Becoming more numerous in alfalfa in southeast; 24 per 10 sweeps in one field in Hutchinson County. (Hantsbarger). MINNESOTA - One to 20 per sweep in central and south central in alfalfa. (Minn. Ins. Rept.).

PLANT BUGS - NEBRASKA - Lygus lineolaris populations very light in northwestern area; counts from 1-3 per 25 sweeps. (Andersen, May 18). NEVADA - Very low in alfalfa, May 11. (Gallaway). SOUTH DAKOTA - Nine Lygus sp. per 10 sweeps in some southeastern alfalfa. (Hantsbarger). IOWA - Average of 5 per sweep in a alfalfa. (Iowa Ins. Inf.). LOUISIANA - Building up in alfalfa, 75 per 100 sweeps in 4 parishes. (Oliver). MINNESOTA - Two to 20 Adelphocoris lineolatus per 10 sweeps on alfalfa in central and south central districts. (Minn. Ins. Rept.). WASHINGTON - Fifty or more per 10 sweeps on alfalfa at Parker, damaging plants. (Landis). Five fields of alfalfa sampled between Prescott and Walla Walla showed .2 adults and 2.3 nymphs per sweep. (Dailey). ARIZONA - Sixty to 90 Lygus spp. per 100 sweeps on seed alfalfa in Yuma area. General build-up beginning. (Ariz. Coop. Rept.). UTAH - Moderate to numerous in alfalfa and mustards, mostly L. elisus. (Knowlton).

POTATO LEAFHOPPER (Empoasca fabae) - WISCONSIN - Found in Rock, Grant and Lafayette Counties May 15. First found in 1956 in Grant County, May 16. (Wis. Ins. Surv.). FLORIDA - Thirty-eight per 100 sweeps on lupine March 15. Determined H. B. Cunningham. (Mead). ILLINOIS - Averages 185 per 100 sweeps in alfalfa. Highest counts, 700 per 100 sweeps, in eastern area. (Ill. Ins. Rept.). IOWA - Present over State, 1 per sweep in alfalfa. (Iowa Ins. Inf.). KANSAS - Abundant in northeast, 72-384 per 100 sweeps in Atchison, Doniphan and Leavenworth Counties. (Matthew). PENNSYLVANIA - Few adults in alfalfa. (Udine, Menusan).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - ILLINOIS - Range of infested stems - 60 to 100. Averages 25 adults per 100 sweeps. (Ill. Ins. Rept.).

CLOVER LEAF WEEVIL (Hypera punctata) - NEBRASKA - Infestation greater than in past two years in eastern third of State, 2-6 per sweep in alfalfa. (Andersen).

ALFALFA WEEVIL (Hypera postica) - CONNECTICUT - One adult swept from newly-established alfalfa field in New Haven County. Determined R. E. Warner. (Quinton). First report from State. MARYLAND - First-generation adults abundant in Howard County. Larval damage continues. Damage to unsprayed alfalfa has been severe. (U. Md., Ent. Dept.). SOUTH CAROLINA - Appears to have killed at least one-half stand in one alfalfa field in Lancaster County. (Nettles). PENNSYLVANIA - Larvae still causing damage in alfalfa in south central area. (Pepper). Pupating rapidly in Fulton County and as far north as Northampton County. (Udine, Menusan). Found in Columbia County, new record. (Gesell). NEBRASKA - Adults feeding in alfalfa in Sheridan, Dawes and Sioux Counties. Counts from 1 to 3 per 25 sweeps. First larvae found week ending May 18 with counts from 0 to 1 per 25 sweeps. (Andersen, May 18). UTAH - Larval infestations common with injury in scattered localities. Adults sometimes very abundant. (Knowlton).

ALFALFA WEBWORM (Loxostege commixtalis) - NEBRASKA - Very light on alfalfa in southeast, 1 to 2 per 25 sweeps. (Andersen).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - NEVADA - Adults active in Churchill County, very light compared with 1956. (Gallaway).

VETCH BRUCHID (Bruchus brachialis) - ARKANSAS - Appeared in northeastern counties, 1 to 3 adults per 20 sweeps. (Warren, May 18). TEXAS - Two to 5 per sweep in Kaufman and Hunt Counties. (Randolph).

A SILPHID (Silpha bituberosa) - MONTANA - Larvae damaging alfalfa in Big Horn County. Last reported damaging sugarbeets in same area in 1942. (Roemhild, May 17.).

WESTERN HARVESTER ANT (Pogonomyrmex occidentalis) - UTAH - Commonly reducing farming and grazing areas throughout State. (Knowlton).

FRUIT INSECTS

PLUM CURCULIO (Conotrachelus nenuphar) - INDIANA - Population increased in untreated orchards in Vincennes area; counts 97 from 5 trees. None in commercial orchards on May 20. (Hamilton). Populations down some at Orleans. (Marshall). ILLINOIS - Large quantity present at Carbondale; more damage this year than in 1956. (Meyer). GEORGIA - First-generation adults expected to emerge at Fort Valley May 28, with numbers expected by June 7. (Snapp). OHIO - Populations decreasing on peaches and plums at Wooster. (Rings). PENNSYLVANIA - Some adults still present and making egg cuts on apple and peach in south central area. (Pepper). RHODE ISLAND - None found but few characteristic feeding wounds on apple. (Caroselli, Stoner).

CODLING MOTH (Carpocapsa pomonella) - INDIANA - First larvae hatched at Vincennes, May 18. No oviposition since May 17 at Vincennes with 45 percent adults emerged. Development generally slow. Entries in fruit likely to increase week of May 27. (Hamilton). Emergence from packing houses approaching peak at Orleans. (Marshall). ILLINOIS - Larval entries at Carbondale May 16. Fifty percent larvae dead due to weather. (Meyer). MASSACHUSETTS - Egg-laying observed. (Crop. Pest Cont. Mess.). DELAWARE - More than 50 percent emergence at Woodside. (Late News). OHIO - Over 50 percent emerged at Wooster. (Cutright). KANSAS - Appeared in traps May 22. Most orchards in northeast area treated. (Eshbaugh). UTAH - First moths taken in bait traps at Orem. (Davis). OREGON - Emerged May 13 at Hood River. (Ellertson). MISSOURI-Numerous entries in Cape Giaradeau area.(Wkly. Rept. Fr. Grs.).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - ILLINOIS - Present in most orchards at Carbondale; majority this species though Archips argyrospila present some orchards and damaged one planting. (Meyer). MASSACHUSETTS - Larvae feeding. (Crop Pest Cont. Mess.). MICHIGAN - Eggs about 70 percent hatched at Paw Paw, South Haven and Benton Harbor areas. (Hutson, May 20). OHIO - Second and third-instar larvae common. (Cutright). WISCONSIN - Adults emerged last of April, abundant May 24 some Door County orchards. (Wis. Ins. Surv.). PENNSYLVANIA - Hatching on apples in northeast (Adams) and larvae on water sprouts in south central area (Pepper). MINNESOTA - About 15 percent hatched in LaCrescent area. (Minn. Ins. Rept. Serv.). KANSAS - Few on shoot-tips in center of trees, northeastern area. (Eshbaugh). MISSOURI - Considerable infestation in central and west central orchards. (Wkly. Rept. Fr. Grs).

ORCHARD MITES - INDIANA - Populations of Metatetranychus ulmi generally light in Vincennes area; weather favorable for development of mites. (Hamilton). MICHIGAN - M. ulmi hatched but slowed by weather throughout southwestern area. Tetranychus telarius building up on apples at Sparta. (Hutson, May 20). OHIO - Populations of T. telarius averaged less than one per leaf on peaches in Wooster area. (Rings). WISCONSIN - M. ulmi abundant in Door county; more numerous than 1956 this period. (Wis. Ins. Surv.). WASHINGTON - Abundant on apples and pears in Okanogan area. (Law).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - NEW JERSEY - Twig injury in unsprayed trees quite apparent. (Ins.-Dis. News.).

CURCULIOS - MASSACHUSETTS - Egg-laying much below normal for apple development. About 60 adults per tree, 50 percent of expected total. (Crop Pest Cont. Mess.).

LESSER PEACH TREE BORER (Synanthedon pictipes) - ILLINOIS - Emerging at Carbondale. (Meyer). PENNSYLVANIA - Full-grown larvae and some pupae on peach in south central area. (Pepper).

PEACH TREE BORER (Sanninoidea exitiosa) - KANSAS - Injury to trees in Jefferson, Jackson, Doniphan and other northeast counties. (Matthew, Eshbaugh).

PEACH TWIG BORER (Anarsia lineatella) - UTAH - Conspicuous damage in smaller orchards in Box Elder, Weber, Salt Lake, Utah, Iron and Sevier Counties. (Knowlton).

SHOT-HOLE BORER (Scolytus rugulosus) - NEW JERSEY - Attacking peach in central and southern areas. (Ins.-Dis. News.).

CLIMBING CUTWORMS - MICHIGAN - Defoliating cherry orchards in spotted areas in Traverse City area. (Hutson).

EYE-SPOTTED BUD MOTH (Spilonota ocellana) - WISCONSIN - Populations in Door County higher than in 1956 same period, especially where dormant sprays not applied. (Wis. Ins. Surv.).

A PEAR SAWFLY (Pristiphora californicus) - OREGON - Larvae damaging leaves in Medford orchards. (Gentner, Berry).

CATFACING INSECTS - INDIANA - Stink bugs active in peach orchards at Vincennes; period of severe catfacing past. (Hamilton). Populations down at Orleans. (Marshall). OHIO - Neolygus omnivagus and N. caryae began migrating into peach orchards May 24 at Wooster. Lygus lineolaris populations decreasing. Acrosternum hilare and Euschistus tristigmus common on peaches in Wayne County. (Rings). MISSOURI - More than usual catfacing on peaches in some areas. (Wkly. Rept. Fr. Grs.).

PLUM WEB-SPINNING SAWFLY (Neurotoma inconspicua) - TENNESSEE - Infestation on blooms in Campbell County. (Mullett).

PEAR PSYLLA (Psylla pyricola) - WASHINGTON - Heaviest infestation in Yakima and Wenatchee area in history. Many phosphates formerly used now not effective. (Telford).

PERIODICAL CICADA (Magicicada septendecim) - INDIANA - Adults emerged at Nashville about May 12 (Hamilton) and appearing at Orleans on May 21 (Marshall). TENNESSEE - Hundreds observed at Norris in proximity of Norris Dam. (Gunning). Emerging in eastern half of State, particularly in high areas. (Mullett). NORTH CAROLINA - Causing severe damage to trees over Caldwell County; 5 to 10 females depositing eggs some branches. (Culp, Jones). Abundant in Buncombe, Haywood and Madison Counties. Observed in Yancey, Mitchell, Caldwell and Wilkes Counties. Heard in Avery County. (Harris). PENNSYLVANIA - Adults emerging rapidly. No egg cuts on apple yet in Adams County (Pepper) emerging in Centre County (Udine) and first adults in Northumberland County May 17 (Gesell).

WESTERN CHERRY FRUIT FLY (Rhagoletis cingulata indifferens) - OREGON - First adult emerged May 17 at The Dalles. (Ellertson).

WOOLLY APPLE APHID (Eriosoma lanigerum) - PENNSYLVANIA - A few showing up on apple limbs in south central area. (Pepper). ARIZONA - Still increasing on apple in Safford area, Graham County. (Ariz. Coop. Rept.).

APPLE APHID (Aphis pomi) - MICHIGAN - Increasing at Shelby and Peach Ridge. (Hutson). OHIO - Heavy primary infestations several northeastern orchards. New colonies being established by migrants. (Cutright). WASHINGTON - Serious but spotted infestation on young trees in Okanogan area. (Law).

APHIDS - UTAH - Extremely abundant in Washington County and locally abundant many other areas. Most commonly infested are peaches, prunes, plums and alfalfa. (Hughes, Knowlton).

EIGHT-SPOTTED FORESTER (Alypia octomaculata) - KANSAS - Rather heavy, 28-34 percent tip infestation, in one untreated grape vineyard in Doniphan County. (Matthew, Eshbaugh).

FORBES SCALE (Aspidiotus forbesi) - INDIANA - First-brood crawler on May 17 at Vincennes. (Hamilton).

FLETCHER SCALE (Lecanium fletcheri) - MICHIGAN - Egg laying on blueberry at Millburg. (Hutson, May 20).

CORN EARWORM (Heliothis zea) - SOUTH CAROLINA - Third instars feeding on and in peaches. Damage from light to moderate in Lexington, Saluda, Aiken and Edgefield Counties. (Moore).

A WEEVIL (Magdalis sp.) - WASHINGTON - Particularly abundant on apple at Shaw Island. (Baker).

FALL WEBWORM (Hyphantria cunea) - GEORGIA - First-generation larvae infesting pecan trees in Dougherty County. (Osburn, May 20).

MAY BEETLES - SOUTH CAROLINA - Very serious damage to pecan trees one location in Oconee County. Large trees not seriously injured. (Nettles). LOUISIANA - Attacking some pecan trees in Bossier Parish. (Oliver, May 17).

TRUCK CROP INSECTS

TOMATO RUSSET MITE (Vasates lycopersici) - GEORGIA - Infesting tomatoes in Dougherty County. (Osburn, May 20).

TOMATO FRUITWORM (Heliothis zea) - GEORGIA - Light to moderate infestations in Colquitt and Thomas Counties. Heavy infestations in Tattnall County. (Johnson). ARIZONA - Heliothis sp. numerous on tomatoes in small plantings around Yuma. Control required. (Ariz. Coop. Rept.).

STINK BUGS - GEORGIA - Light infestations of Euschistus servus and Nezara viridula on tomatoes in Thomas County and light to moderate in Colquitt County. (Johnson).

POTATO FLEA BEETLE (Epitrix cucumeris) - PENNSYLVANIA - Slight to moderate damage to potato and tomato in southeastern area (Menusan) and a problem on both plants where no controls applied in south central area (Pepper). RHODE ISLAND - Moderate on crucifers, West Kingston. (Stoner).

SOUTHERN POTATO WIREWORM (Conoderus falli) - SOUTH CAROLINA - Moderate injury to tubers some plantings of Irish potatoes at Charleston. In some fields, one-third of tubers show feeding. (Ried, Cuthbert, Day).

POTATO APHID (Macrosiphum solanifolii) - MARYLAND - Light to moderate on potatoes and tomatoes on lower Eastern Shore. (U. Md., Ent. Dept.).

Potato Psyllid Survey - Second survey, made during week of May 20-24, revealed areas east of the mountain range in Wyoming and Nebraska with lighter population than previous survey probably due to weather. Population on eastern slope of mountain in Colorado increasing with average of 112 per 100 sweeps in Greeley district in northern Colorado and 210 in Arkansas Valley of southern Colorado. All indications point to severe epidemic this year. Low populations in areas west of mountain range in Grand Junction and northern Utah areas. (PPC, States Coop.).

GREEN PEACH APHID (Myzus persicae) - WASHINGTON - Colonies becoming established nightshade and potatoes at Parker. (Landis).

FLEA BEETLES - NEW JERSEY - Adults prevalent on potatoes and numerous many southern sweet corn fields. Incidence of wilt higher than 1956. (Ins.-Dis. News.). MARYLAND - Light to moderate on sweet corn, tomatoes and potatoes in lower Eastern Shore. (U. Md., Ent. Dept.). VIRGINIA - Numbers heavier than usual on various hosts in Norfolk area, but about normal on Eastern Shore. (Brubaker, Greenwood, Hofmaster).

EUROPEAN CORN BORER (Pyrausta nubilalis) - NORTH CAROLINA - Light to moderate on Irish potatoes in Currituck County. (Scott).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - GEORGIA - Infesting tomatoes in Dougherty County. (Osburn, May 20). ARKANSAS - Heavy feeding damage to potatoes over State. Frequent rains hampered control. (Warren, May 20). VIRGINIA - Light on potatoes in Accomac County. (Rogers). Larvae, all stages, present on potatoes in apparently heavier numbers than 1956 on the Eastern Shore. Populations seem 2 weeks earlier than usual. Infestations of adults light in Norfolk area with few egg masses present. (Brubaker, Greenwood, Hofmaster).

ASPARAGUS BEETLES - MICHIGAN - Crioceris asparagi and C. duodecimpunctata very active in Millburg, Benton Harbor and Coloma areas. (Hutson, May 20). DELAWARE - Numerous in Middletown area. (Late News). ARKANSAS - Infestations active in asparagus beds in Mississippi County. Injury light. (Warren, May 20). WISCONSIN - Moderate to heavy populations in Waushara and Dunn Counties. (Wis. Ins. Surv.).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - ARIZONA - Heavy in one cantaloup field at Yuma and scattered light infestations elsewhere in area. (Ariz. Coop. Rept.).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - MARYLAND - Adults heavy on untreated cucumbers and melons in Wicomico County. (U. Md., Ent. Dept.).

CUCUMBER BEETLES - NEW JERSEY - Very numerous. (Ins.-Dis. News.).

PEA WEEVIL (Bruchus pisorum) - OREGON - Populations spotty in Washington and Marion Counties. Control underway for combination aphid and weevil control. (Hanna).

PEA APHID (Macrosiphum pisi) - WASHINGTON - Relatively low number of migrants to peas expected due to reduction of aphid population on alfalfa by intermittent rains in Walla Walla area. (Cook).

OMNIVOROUS LEAF TIER (Cnephasia longana) - OREGON - Light on peas for freezing in Washington and Marion Counties. One to two larvae per 10 sweeps and no severe tying of tips seen May 15. (Hanna).

MEXICAN BEAN BEETLE (Epilachna varivestis) - GEORGIA - Moderate infestations on beans in Lincoln and Dougherty Counties. (McGee, Osburn, May 20). Light to heavy on beans in Brooks and Lowndes Counties. (Johnson). SOUTH CAROLINA - Moderately abundant on snap beans at Charleston. (Reid, Cuthbert, Day). NORTH CAROLINA - Few in Granville County. (Chamberlin). MARYLAND - Adults on snap beans in Wicomico County, May 22. (U. Md., Ent. Dept.). VIRGINIA - Adults coming out of hibernation in large numbers with characteristic feeding damage becoming apparent in Norfolk area. Few egg masses. (Brubaker, Greenwood, Hofmaster).

BEAN LEAF BEETLE (Cerotoma trifurcata) - NORTH CAROLINA - Quite abundant on beans in Granville County; causing moderate damage. (Chamberlin). MARYLAND - Generally abundant on snap beans and soybeans on lower Eastern Shore. (U. Md., Ent. Dept.). VIRGINIA - Considerable damage to young beans in Norfolk area. (Brubaker, Greenwood, Hofmaster).

IMPORTED CABBAGEWORM (Pieris rapae) - SOUTH CAROLINA - Light and increasing populations on late spring cabbage at Charleston. (Reid, Cuthbert, Day).

CABBAGE LOOPER (Trichoplusia ni) - SOUTH CAROLINA - Moderately abundant on late-spring cabbage at Charleston. (Reid, Cuthbert, Day). ARIZONA - Larvae survived to third instar on cantaloup in Yuma area while in previous years seldom reached second instar on this crop. Populations now generally low. (Ariz. Coop. Rept.).

CABBAGE MAGGOT (Hylemya brassicae) - MICHIGAN - Troublesome at Riga, East Lansing and Benton Harbor. (Hutson, May 20). PENNSYLVANIA - Moderate to severe on untreated cabbage, Northampton County. (Menusan).

ONION MAGGOT (Hylemya antiqua) - WASHINGTON - Larvae at high point of activity in Walla Walla area. Average of 2 percent infestation in onion fields over area with heavily infested fields showing 50 percent infestation. (Woodworth).

GARDEN SPRINGTAIL (Bourletiella hortensis) - PENNSYLVANIA - Control necessary on cabbage in Luzerne County. (Gesell).

A LETTUCE APHID (Macrosiphum barri) - ARIZONA - Exceptionally abundant on some seed lettuce fields in Yuma County. (Ariz. Coop. Rept.).

SPINACH LEAF MINER (Pegomya hyoscyami) - MASSACHUSETTS - Laying eggs; some miners observed. (Crop Pest Cont. Mess.).

YELLOW MARGINED LEAF BEETLE (Microtheca ochroloma) - LOUISIANA - Infestation found on turnips at LaPlace in St. John the Baptist Parish. This is second infestation in State. (Oliver, May 17).

BEET LEAFHOPPER (Circulifer tenellus) - NEVADA - Population count in sugar beet fields, Churchill County, averaged 0.03 per foot of beet row. Average of 0.20 per square foot on Russian-thistle, Walker Lake area. Doubtful if additional migration north to cultivated areas will occur. The per-foot-of-beet-row count compares with 0.12 average in 1956. (Dorst, Gallaway).

SQUASH VINE BORER (Melittia cucurbitae) - FLORIDA - Adults averaged 1 per 50 plants in Gainesville area. (Esser).

RHUBARB CURC. (Lixus concavus) - IOWA - Excavating holes and laying eggs in petioles of rhubarb in Boone and Story Counties. (Iowa Ins. Inf.).

BLACK CUTWORM (Agrotis ypsilon) - NEVADA - Damaged onions in Washoe County. Most over one-half grown. (Gallaway, May 18).

CUTWORMS - WISCONSIN - Medium to heavy populations in several counties. (Wis. Ins. Surv.).

APHIDS - UTAH - Heavy on tomatoes in Washington County. (Hughes, Knowlton).

A SCARABAEID (Aphodius sp.) - WASHINGTON - Larvae damaging germinating seed peas near Quincy. Det. Ritcher. (Manis).

TARNISHED PLANT BUG (Lygus lineolaris) - MICHIGAN - Adults numerous on strawberries at Leland and Tranverse City. (Hutson, May 20).

STRAWBERRY LEAF ROLLER (Ancylis comptana fragariae) - IOWA - On strawberries in southern half of State. (Iowa Ins. Inf.). KANSAS - A few in berry fields in northeastern area indicating beginning of infestations. (Eshbaugh).

STRAWBERRY MITES - INDIANA - Ruined crop many commercial and garden patches in Orleans area. Crop light or mediocre in quality. (Marshall). MICHIGAN - Tetranychus telarius common on strawberries at Paw Paw, Benton Harbor and South Haven. (Hutson, May 20).

RASPBERRY CANE MAGGOT (Pegomya rubivora) - WASHINGTON - Much more damaging to raspberries than for past several years in northwestern counties. (Eide).

RASPBERRY SAWFLY (Monophadnoides geniculatus) - OREGON - Larvae ragging leaves of boysenberries in Marion County. (Stephenson).

A NITIDULID (Lobiopa insularis) - LOUISIANA - Markedly increased in strawberry fields in Tangipahoa Parish. (Oliver, May 17).

TOBACCO INSECTS

TOBACCO BUDWORM (Heliothis sp.) - GEORGIA - Light in 2 counties, moderate in 11 counties and heavy in Ware County. (Johnson).

CABBAGE LOOPER (Trichoplusia ni) - FLORIDA - Larvae averaged 10 per 100 shade tobacco plants at Quincy, May 15. Increased from 1 per 100 plants during last 20 days. Generally distributed in area. (May).

CUTWORMS - NORTH CAROLINA - Unusually scarce on tobacco in Granville County. (Chamberlin).

HORNWORMS (Protoparce spp.) - NORTH CAROLINA - First egg on May 20 in tobacco in Granville County, 1 egg per 60 plants in 1 field in Columbus County, and from 12 to 20 percent of plants infested in examined fields in Johnston County. (Chamberlin, Guthrie). Relatively large numbers of adults trapped in Granville County. (Chamberlin). VIRGINIA - Eggs and first instar larvae found in Pittsylvania County. First moth trapped May 11. (Dominick).

GEORGIA - Light infestations on Turkish tobacco in Lincoln County. (McGee).

APHIDS - NORTH CAROLINA - On 75 percent of tobacco plants with only 1 small colony in 110 plants in Columbus County. Most single, winged adults. (Guthrie).

GREEN PEACH APHID (Myzus persicae) - GEORGIA - Light infestations in Colquitt, Ware and Tattnall Counties. (Johnson). NORTH CAROLINA - None observed on tobacco this season in Granville County. (Chamberlin).

STINK BUGS - GEORGIA - Moderate infestations of Euschistus servus and Nezara viridula on tobacco in 13 counties and heavy in Brooks County. (Johnson).

GRASSHOPPERS - GEORGIA - Light to moderate infestation on tobacco in Ware, Pierce, Wayne and Tattnall Counties. (Johnson).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - GEORGIA - Heavy infestations on tobacco in Berrien, Atkinson, Ware, Peirce, Wayne, Tattnall, Candler and Emanuel Counties. (Johnson). NORTH CAROLINA - Few to moderate on tobacco in Granville County, damage moderate in Surry and Vance Counties and on newly-set plants in Forsyth County. (Chamberlin, Guthrie, Scott). MARYLAND - From moderate to heavy on tobacco beds in Calvert County. (U. Md., Ent. Dept.). VIRGINIA - Moderate to heavy on newly-set tobacco some areas of Pittsylvania County. (Dominick).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - NORTH CAROLINA - Injurious to tobacco in Madison County. (Scott). MARYLAND - Damage to tobacco in beds light to heavy in Calvert County. First infestations in Charles and Anne Arundel Counties. Now found in 4 or 5 tobacco-growing counties and considered a major pest of tobacco in beds. (U. Md., Ent. Dept.).

WIREWORMS - VIRGINIA - Damaged 50 percent of plants in 2 acre newly-set field in Pittsylvania County. (Dominick).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - Of 53 fields inspected in 16 middle and south Georgia counties, 50 were infested with average of 331 weevils per acre. Cotton squaring in southern counties. (Johnson). NORTH CAROLINA - Average of 2.6 weevils per 100 cotton plants in Scotland County. Heaviest infestation in Hoke County 25 per 100 plants. (Williford, Caudill, Owens). Large numbers out in cotton fields. (Cott. News Lett.). TEXAS - Continues to increase in lower Rio Grande Valley. (Deer). Survival in hibernation cages at Waco to May 24: 1957-5.1, 1956-.06, 1955-6.3. Weevils found at rate of 23 per acre in 23 fields in McLennan and Falls Counties compared with 24 per acre in 10 fields a year ago. (Parencia et al.). TENNESSEE - Indication some weevils active in west Tennessee. (Locke). LOUISIANA - Weevils found in 24 of 29 fields in Madison Parish at overall average of 255 per acre. Percentage survival in cages to May 24: 1957-.4, 1956-1.06, 1955-.7. (Smith et al.). Only occasional weevil in 7 parishes. (Oliver). MISSISSIPPI - Still appearing in relatively small numbers over the delta. Counts in Bolivar County showed 1 field of 5 examined infested at rate of 100 weevils per acre. Sunflower County continues most heavily infested county: 4 of 5 fields had 100, 150, 200 and 300 weevils per acre. (Merkl et al.).

BOLLWORMS (Heliothis spp. et al.) - MISSISSIPPI - Eggs and larvae in a few fields of older cotton in delta counties. (Merkl et al.).

CUTWORMS - ARKANSAS - Some cotton fields damaged where cotton followed winter cover crops. (Warren). TENNESSEE - Light damage in 2 fields in west Tennessee. (Locke).

FLEAHOPPERS - TEXAS - Continue very heavy in lower Rio Grande Valley. (Deer). Increase in cotton fleahopper adults on cotton in McLennan and Falls Counties. Occasional nymph found. Fleahoppers averaged 1.7 per 100 feet of row in 23 fields compared with 1.1 a year ago. Appears horsemint crop may be short indicating possibility of immediate movement of insects to cotton. (Parencia et al.). LOUISIANA - Cotton fleahopper adults observed in cotton terminals in several fields in Madison Parish. (Smith et al.). MISSISSIPPI - Small numbers in many fields in delta. (Merkl et al.).

THRIPS - LOUISIANA - Heavy on seedling cotton in Tensas, Ouachita, Bossier, Red River, Madison, Richland and Concordia Parishes. (Oliver). Damage still noticeable in many fields in Tallulah area. Some applications still in progress. (Smith et al.). ARIZONA - Populations generally lower than last year in Yuma area. Still abundant many fields in Casa Grande area, Pinal County, 600 acres treated. (Ariz. Coop. Rept.). TEXAS - Medium in 4 fields and light in 19 in McLennan and Falls Counties. (Parencia et al.). MISSISSIPPI - Damage evident in some fields throughout delta. Counts have been very erratic. Controls effectively reducing damage. (Merkl et al).

SPIDER MITES - ARIZONA - Some concern on cotton in Coolidge area, Pinal County. (Ariz. Coop. Rept.). TEXAS - Increasing in scattered fields in lower Rio Grande Valley. (Deer).

BEET ARMYWORM (Laphygma exigua) - ARIZONA - Some damage to cotton in Pinal County; light in medium in Tucson area. (Ariz. Coop. Rept.).

APHIDS - ARIZONA - Aphis gossypii light in several cotton fields in Yuma area. (Ariz. Coop. Rept.). TEXAS - Cotton aphid infestations continue light in Waco area. (Parencia et al.).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - NORTH CAROLINA - Aedes sollicitans biting at 1 to 20 per minute in areas of Onslow County and biting in Florence and Pamlico Counties. Where present on east central coastal area, usually in large numbers. Very few A. taeniorynchus seen in Carteret County week ending May 10. (Cromroy). ARIZONA - Mosquito annoyance increasing in Phoenix area and at Safford, Graham County. (Ariz. Coop. Rept.). TEXAS - Numerous over most of State. (Turney). ARKANSAS - Becoming problem in flood and backwater areas. Attack on cattle severe in southwestern area and important elsewhere in recently flooded areas. (Warren). KANSAS - Extemely abundant in many southeastern areas of State and with continued wet weather activity should increase. (Gates). FLORIDA - Aedes sticticus adults averaged 400-500 per hour biting rate at Torreya State Park, Liberty County, May 13. Apparently not troublesome last year in the state park but considerable flooding seems to account for outbreak of species this year. (Mead).

SCREW-WORM (Callitroga hominivorax) - GEORGIA - Infesting 3 calves in Lincoln County. (McGee, May 20).

SHEEP KED (Melophagus ovinus) - UTAH - Infestations moderate to severe generally throughout the State. (Knowlton).

FLIES - IOWA - Stable flies and horn flies attacking cattle. (Iowa Ins. Inf.).

CATTLE GRUBS - IOWA - Heel flies attacking cattle. (Iowa Ins. Inf.).

HORN FLY (Siphona irritans) - VIRGINIA - Averaged about 100 per animal for 12 herds in Montgomery County. Infestations ranged from 10 flies per animal per herd to over 300 per animal per herd. (Hargett).

T A B A N I D S - NORTH CAROLINA - Large numbers present in swamps around Currituck Sound. (Cromroy, May 10). VIRGINIA - Very heavy and annoying to beef and dairy herds on farm at Blacksburg. (Turner). Ranged 0-10 per animal in herds in Montgomery County. (Hargett). WEST VIRGINIA - Abundant and troublesome to man and animals in Mineral County. (W. Va. Ins. Sur.).

HOUSE FLY (Musca domestica) - PENNSYLVANIA - Becoming abundant in dairy barns. (Pepper).

AMERICAN DOG TICK (Dermacentor variabilis) - WEST VIRGINIA - Abundant on man and animals in Mineral County. (W. Va. Ins. Surv.). WISCONSIN - Medium to heavy in 16 counties. Apparently more numerous in Langlade County than for years. (Wis. Ins. Surv.). IOWA - Common in woods and brush. (Iowa Ins. Inf.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

A PINE SAWFLY (Neodiprion pratti) - MARYLAND - Heavy on Virginia and pitch pine along Patuxent Rier watershed. (U. Md., Ent. Dept.).

RED-PINE SAWFLY (Neodiprion nanulus) - WISCONSIN - Second instars in central counties May 12. (Wis. Ins. Sur.).

BALSAM TWIG APHID (Mindarus abietinus) - PENNSYLVANIA - Very heavy on balsam fir in Clinton County, May 15. Det. J. O. Pepper. (Gesell).

A PINE BEETLE (Dendroctonus sp.) - NEVADA - Approximately 4,000 infested trees on less than 4,000 acres in Crystal Bay area, Lake Tahoe. Brood in infested trees from extremely light to moderately heavy. Heavy predation by woodpeckers on old infestations. (Washburn, Hall, Wickman; May 4).

IPS BEETLES - OKLAHOMA - Light to medium of chiefly Ips avulsus in slash pine, McCurtain County. (Coppock).

PINE ROOT COLLAR WEEVIL (Hylobius radicis) - WISCONSIN - Many red, jack,Scotch pines 20-30 feet tall, planted in windbreaks, tipped over due to attack of this insect in Adams County. (Wis. Ins. Sur.).

WHITE-PINE WEEVIL (Pissodes strobi) - MICHIGAN - Reached peak of egg laying at Lake City, Grand Rapids and Lawton. (Hutson, May 20).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - RHODE ISLAND - Extremely heavy infestation on pine at Providence. (Lewis, Stoner).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Larvae causing damage in Winnebago, Outagamie and Calumet Counties, new records Winnebago and Calumet Counties. (Wis. Ins. Sur.).

A LEAF ROLLER (Tortrix clemensiana) - MICHIGAN - Damaging Scotch pine in Paw Paw-Mateawan area. (Hutson).

JACK-PINE BUDWORM (Choristoneura pinus) - WISCONSIN - Three to 7 larvae, mostly second instars, feeding in staminate flowers in Polk County. Populations appear high in Douglas County. (Wis. Ins. Sur.). MINNESOTA - Third-instar larvae feeding in tips and on pollen of staminate flowers in St. Croix State Park. (Minn. Ins. Rept.).

PINE SPITTLEBUG (Aphrophora parallela) - WEST VIRGINIA - Light to medium on Virginia pine in Mineral County. (W. Va. Ins. Sur.). WISCONSIN - Second-instar nymphs on young jack pine in Polk County, May 17. (Wis. Ins. Rept.).

SPIDER MITES and MEALYBUGS - OKLAHOMA - Severe damage to cedars at Barltesville. (Struble).

MAY BEETLES (Phyllophaga spp.) - ARKANSAS - Activity heavy over State, particularly where woodlands adjoined waste land and meadows. Partial to complete defoliation of single trees and those covering several acres occurred. Oaks and pecan appeared the favored hosts. (Warren).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - RHODE ISLAND - Continuing its normal development in all areas reported so far and apparently more damaging than usual in some areas. Host preference seems to be wild cherry; none seen on apple yet. (Stoner).

BIRCH LEAF MINER (Fenusa pusilla) - PENNSYLVANIA - Rather heavy on birch in Snyder County. (Gesell). General in south central area.

BROWN-HEADED ASH SAWFLY (Tomostethus multicinctus) - RHODE ISLAND - Tremendous numbers of larvae defoliating ash at Cranston. (Mathewson).

ELM LEAF BEETLE (Galerucella xanthomelaena) - INDIANA - Nearly all eggs hatched at Vincennes by May 17; heavy feeding started. (Hamilton). NEVADA - Adults active and some ovipisition underway. Elms severely attacked in 1956 very slow in leafing out this year. (Gallaway).

SPRING CANKERWORM (Paleacrita vernata) - NEBRASKA - Heavy population in American elm and Chinese elm in northwest. Counts averaged 3 per leaf of 50 sampled. Spotted and light in southeastern area. (Andersen).

APHIDS - CALIFORNIA - Cinara piceicola found at nursery, San Bernadino County, May 1. Medium infestation on Norway spruce. Reported for first time in State. Det. F. L. Blanc. (Harper). UTAH - Snowball aphids (largely Anuraphis viburnicola and Aphis fabae) severely curling most snowball bush foliage in northern and central Utah Counties, with substantial damage even in southern area. (Knowlton). WASHINGTON - Abundant on Norway maple at Bellingham. Elm aphids (probably Eriosoma americanum) damaging elm foliage at Wenatchee. (Telford). NORTH DAKOTA - Heavy on boxelder and some elms in eastern area. (N. D. Ins. Rept.). KANSAS - Abundant on elm, oak and maple in eastern counties. Hard maples in several counties heavily infested with Drepanaphis acerifoliae. (Matthew). MISSOURI - Heavy on ornamentals. (Wkly. Rept. Fr. Grow.). FLORIDA - Cinara tujafilina adults on arborvitae averaged the following: 1,000 per plant on 20 plants at Mt. Dora, Lake County, 100 per stem on 10 plants at Tampa and 50 per plant on 4 plants in St. Lucie County, May 14 and 18. (Bentley, Hale, Campbell). OKLAHOMA - Abundant in rose buds in Frederick area. (Hatfield).

VIBURNUM APHID (Anuraphis viburniphila) - WISCONSIN - Heavier than for years on snowball at Madison. (Wis. Ins. Sur.). MINNESOTA - Distortion of leaves and new growth of snowball bush and other ornamentals by probably A. viburniphila. (Minn. Ins. Rept.).

JAPANESE BEETLE (Popillia japonica) - NORTH CAROLINA - First emergence on May 20. Locally abundant in New Hanover County. (Sessions, Kelly).

ROSE CHAFER (Macrodactylus subspinosus) - MARYLAND - Local adult infestations of roses in Anne Arundel County and chestnut foliage in Somerset County. (U. Md., Ent. Dept.).

ROSE SCALE (Aulacaspis rosae) - WEST VIRGINIA - Heavy on rose in Kanawha County. (W. Va. Ins. Sur.).

STORED PRODUCTS INSECTS

CARPET BEETLES - UTAH - Caused extensive damage to stored materials one location in Salt Lake City. Control costing $5,000 failed to rid premises of pest. (Knowlton).

BENEFICIAL INSECTS

DAMSEL BUGS (Nabis sp.) - SOUTH DAKOTA - On alfalfa in southeastern area. Ranging from 1-2 adults per 10 sweeps. (Hantsbarger).

LADY BEETLES - ILLINOIS - Eight to 30 per 100 sweeps. (Ill. Ins. Rept.).

KLAMATH WEED BEETLES (Chrysolina sp.) - WASHINGTON - First adults of season on San Juan Island. (Baker).

HONEY BEE (Apis mellifera) - ARIZONA - Being used extensively for pollination of cantaloup and alfalfa in Yuma area this year. (Ariz. Coop. Rept.).

MISCELLANEOUS INSECTS

TERMITES - IOWA - Swarming in southern half of State. (Iowa Ins. Inf.).

CORRECTIONS

CEIR 7(21):391 under HESSIAN FLY, Georgia delete "Jeff Davis County". (Johnson).

CEIR 7(21):409, distribution of RANGE GRASSHOPPERS - Map 125 should read Trimerotropis gracilis (Thomas).

ADDITIONAL NOTES

MAINE - MEADOW SPITTLEBUG hatching in Orono on May 9. First EUROPEAN RED MITE eggs found on apples in York County. PLUM CURCULIO feeding on plum foliage in York and Cumberland Counties. No injury to apples yet. (Boulanger).

NEW YORK - PLUM CURCULIO in large numbers in western area. Egg laying by EUROPEAN RED MITE moderately heavy in Niagara County. Emergence rate of EUROPEAN CORN BORER low in Hudson Valley. Egg-laying negligible though moths common in Ulster County. Egg laying by CABBAGE MAGGOT heavy in Nassau County during late April and May. First COLORADO POTATO BEETLE eggs noted on potatoes in Orange County on May 17, with numerous FLEA BEETLES. (Wkly. Rept.).

OKLAHOMA - Populations of VARIEGATED CUTWORM medium to heavy in legumes and vetch most southern and central areas with average of 14 per 10 sweeps in 3 fields of alfalfa in Logan County. (Coppock). Averaged 15 per square foot near Stillwater and Tulsa County. Some pupating, others first instar. (Bieberdorf). Population 8 to 10 per square foot in alfalfa in Tillman County. Parasitism common. (Hatfield). BLACK CUTWORM numerous and doing considerable damage to seedling corn in south Coffeyville area of Nowata County. (Arbuthnot). ENGLISH GRAIN APHID numerous in wheat heads in Tillman County (Hatfield), and reduced in Marshall area (Henderson). Hatching of range and crop GRASSHOPPERS underway in central area; numbers low at present. Populations all stages generally less than one per square yeard. (Frazier). First PINK BOLLWORM moths taken at Chickasha Station on May 20. (Senette).

INDIANA - EUONYMUS SCALE hatched at Lafayette; heavy on euonymus throughout State. (Schuder). SPRING CANKERWORM feeding on oak in Brown County. PERIODICAL CICADA emerging in 36 counties mostly in southwestern part of State. POTATO LEAFHOPPER occurring throughout most of State with counts up to 2 per sweep. (Osmun).

ALABAMA - AN OAK SCALE (Lecanium quercifex) doing serious damage to water oaks in Marshall County. (Martin). POTATO STALK BORER reported in De Kalb County. Insect is rarely reported in Alabama. (Poe, Ruffin). Severe damage to number of pecan trees by PECAN LEAF CASEBEARER, in Geneva County. (Ruffin).

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. yps.	Prod. orn.	Perid. marg.	Feltia subt.	Heliothis zea	Heliothis vires.	Protoparce sexta	Protoparce quin.
TEXAS									
Beaumont 5/1-15	1	1	7		15				
Greenville 5/1-15	56	19	11	15		3			
Weslaco 5/1-15	180	230	25	30	997	155	1		
Waco 5/18-24	1093	86	186	1891	235	122			
KANSAS									
Manhattan 5/24	1								
Wathena 5/22	7	2							
MISSOURI									
Columbia 5/19-24	4	8							
Sikeston 5/19-24	35	8		1		2			
ARKANSAS									
Fayetteville 5/15-24	92	35		28		4			
Stuttgart 5/16-22	2	4		3					
Hope 5/15-21	35	22				21			
LOUISIANA									
Curtis 5/15-22	114	132	23	76	73	7			1
Baton Rouge 5/19-24		11	23	1	23	4			
MISSISSIPPI									
*Stoneville 5/17-23	3499	1555	118	444	63	171	6	32	
Grenada 5/20-24	86	7	2			2			
State College 5/18-24	124	8	32	9	9	9		3	
TENNESSEE (Counties)									
Madison 5/14-20	46	26	4	6		132		7	2
Lawrence		6		2		12		9	23
Maury	2		6			34		7	20
Robertson	2	4	10			44		2	7
Cumberland	2					6			
Knox	2	4	2	8		13		2	
Greene	6	4		8		20			36
Blount	1								
Monroe	4	12				24		14	33
Johnson	30	16		14		6			
GEORGIA (County)									
Spalding 5/17-23	21	21	27	37	61	152	2	16	17
SOUTH CAROLINA (Counties)									
Florence 5/18-24	49	10	8	23	40	113	1	35	2
Charleston 5/20-26	4	2	4	5	5	1		2	
Oconee 5/18-24	11	9	29	13	14	41	1	31	39
VIRGINIA (Counties)									
Princess Anne 5/20-23	5	3	1	6	1	18			
Pittsylvania (no dates)								11	24
MARYLAND (County)									
Montgomery 5/18-23	2	6		3		1			1
NORTH CAROLINA (Counties)									
Johnston 5/23		5			1	18		19	7
Duplin 5/23								15	6
ILLINOIS									
Urbana 5/16-22	257	8	2	26					
SOUTH DAKOTA									
Brookings 5/23-24	1								
ALABAMA (Counties)									
Lee 5/18,21,23	2		8	4		26	1	17	7
De Kalb 5/18,21	4		8	3		51			36

* Four traps Stoneville

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

GARDEN CHAFER (Phyllopertha horticola (L.))

Economic Importance: This chafer is a rather general feeder, both larva and adult, on many economic plants. It is of major importance in forest nurseries in the British Isles where the larvae severely damage roots of seedlings. Such damage is also reported on young apple seedlings in southern Czechoslovakia. Serious infestations occurred on grasslands in southern and central Wales between 1935 and 1943. The pest also causes injury to small grains. Rye is damaged considerably in Denmark in some years. The adults feed on the foliage of many plants and are particularly destructive to leaves of fruit trees and occasionally to the young fruit.

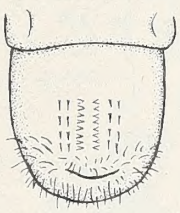
Distribution: From Britain through central and northern Europe, Russia, Siberia and Tibet.

Hosts: Among the many hosts of P. horticola are small grains and grasses, rosaceous fruits, beets, crucifers, beans, peas, flax and forest trees.

Life History and Habits: In the English Lake District, the life history of this insect is as follows: Adults appear generally the last week of May, the males one week before the females. Oviposition occurs in the surface of the soil, each egg being placed in an earthen cavity. Incubation averages five weeks. There are three larval instars with the third ending in diapause. Prepupation begins near the end of March and lasts for three or four weeks; pupation begins third week of April and lasts about four weeks. There is only one generation at a time in the soil and the life cycle requires 12 months. The larva feeds on plant roots which it obtains by tunnelling through the soil. The species frequents grassland mainly, especially in wooded areas.

Description: Adults about 13 mm. long. Wings shiny red-brown, thorax metallic blue or green, under-surface hairy. Larva is about 20 mm. long and to the unaided eye resembles the Japanese beetle grub very closely.
(Prepared in Plant Pest Survey Section in cooperation with other ARS agencies).
CEIR 7(22) 5-31-57

Damage to Beech Seedlings by Chafer Larvae



A

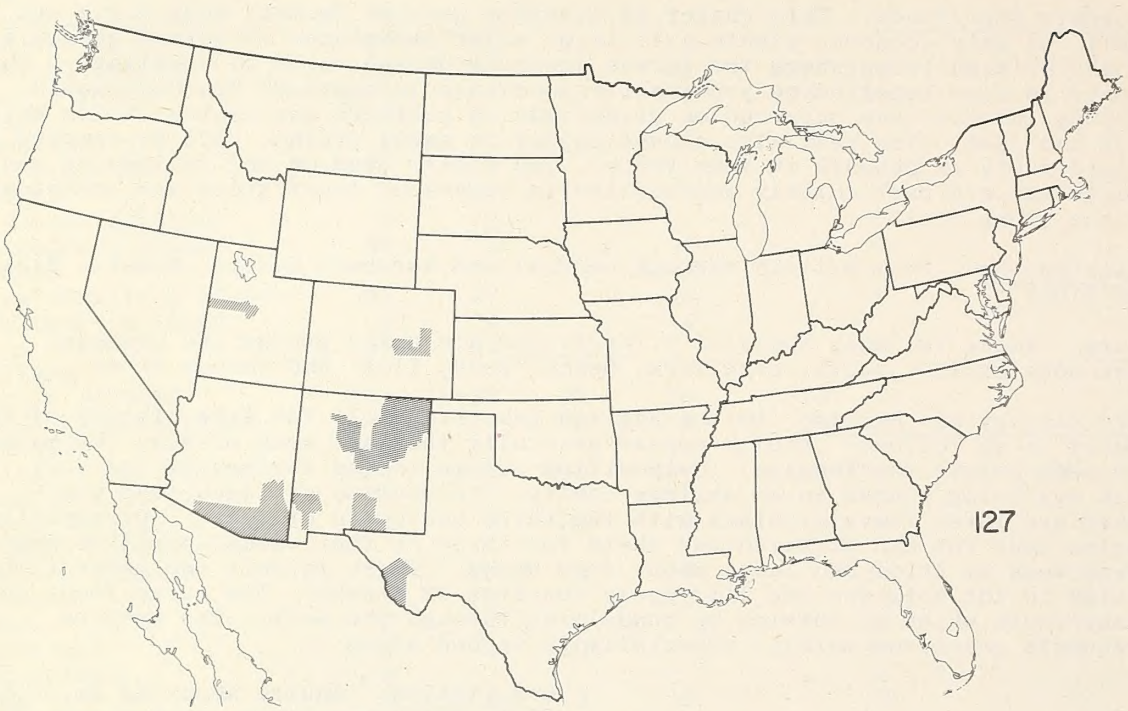
B

(A) Diagram of ventral surface of hind segments of larva.
(B) Adult (slightly enlarged).

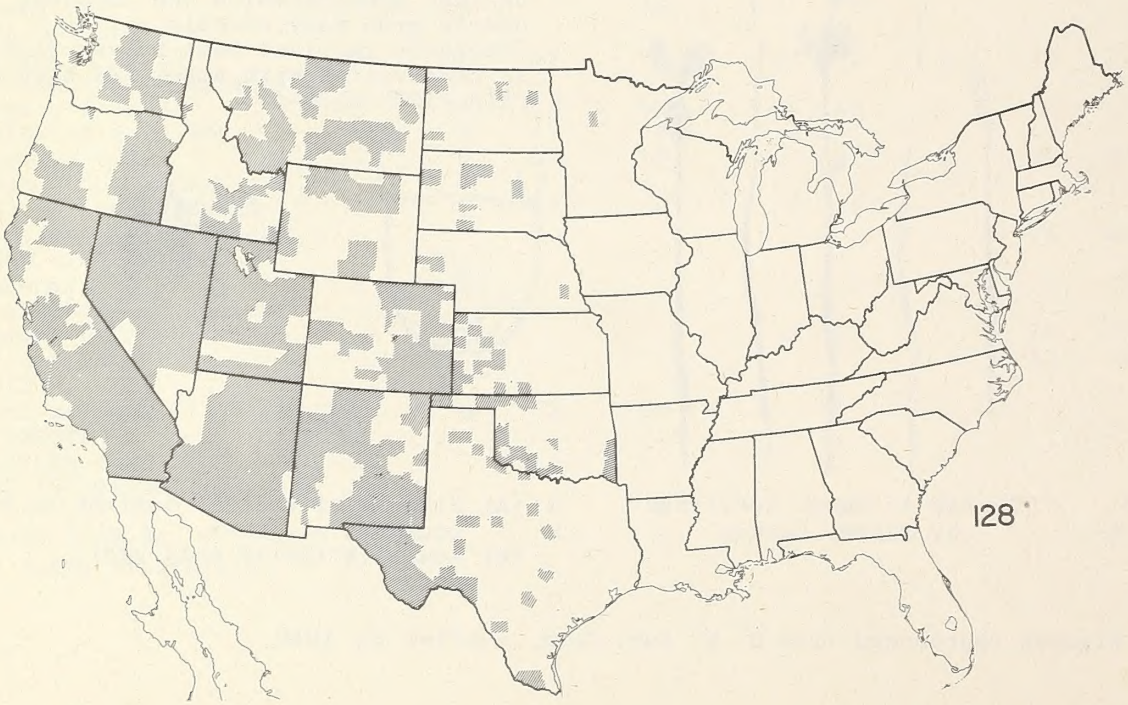
Figures reproduced from H. M. For. Comm. Leaflet 17, 1946

DISTRIBUTION OF RANGE GRASSHOPPERS

Trimerotropis melanoptera McNeill



Trimerotropis pallidipennis (Burmeister)



USDA, AGRL. RESEARCH SERVICE
CROPS REGULATORY PROGRAMS
DIRECTOR
2-6-56
TPS